

CLAIMS

1. Thermoplastic elastomer composition, comprising an thermoplastic polyolefin and an dynamically vulcanized elastomer comprising monomer units of
5 ethylene, an α -olefin and optionally one or more non-conjugated polyenes and oil, having an oil/elastomer ratio of at least 2/1, having a content of thermoplastic polyolefin of less than 10 wt.% relative to the total weight of the thermoplastic elastomer composition, granulate of the composition having the capability of flowing out of a cylinder, held in vertical position, within 120
10 seconds, after being kept in that cylinder under a pressure of 465 kg/m², at a temperature of 50 °C, for a period of 1 hour, that cylinder having an internal diameter of 95.3 millimeter (mm) and a length of 356 mm and being filled for a length of between 326 and 338 mm.
2. Thermoplastic elastomer composition according to claim 1, wherein the
15 granulate is kept in the cylinder for 24 hours.
3. Thermoplastic elastomer composition according to claim 1, wherein the granulate is kept in the cylinder for 48 hours.
4. Thermoplastic elastomer composition according to any one of claims 1-3,
20 wherein the granulate is capable of flowing out of the cylinder within 60 seconds.
5. Thermoplastic elastomer composition according to any one of claims 1-3, wherein the granulate is capable of flowing out of the cylinder within 30 seconds.
6. Thermoplastic elastomer composition according to any one of claims 1-3,
25 wherein the granulate is capable of flowing out of the cylinder within 15 seconds.
7. Thermoplastic elastomer composition according to any one of claims 1 - 6, wherein the thermoplastic polyolefin is polypropylene.
8. Thermoplastic elastomer composition according to any one of claims 1-7,
30 wherein the thermoplastic elastomer composition has a degree of curing between 80 and 98 %.
9. Thermoplastic elastomer composition according to any one of claims 1-8, wherein the thermoplastic elastomer composition has a surface smoothness Ra of less than 10 microns.

- 10 Thermoplastic elastomer composition according to any one of claims 1-9,
wherein the thermoplastic elastomer composition has a surface smoothness
Ra of less than 5 microns.
11. Thermoplastic elastomer composition according to any one of claims 1-9,
5 wherein the thermoplastic elastomer has a hardness below 50 shore A.
12. Process for producing the thermoplastic elastomer composition according to
any one of claims 1-11, wherein the elastomer is dynamically cured by using
0.5 - 5 parts of phenolic resin based on 100 parts of elastomer.
- 13 Mixture comprising the thermoplastic elastomer composition according to any
10 one of claims 1-11 and a further thermoplastic polymer.